CLAIMS

1. A method of forming a capacitor construction, comprising:

providing a first capacitor electrode;

forming a perovskite-type dielectric material over the first capacitor electrode, the perovskite-type dielectric material having a first edge region proximate the first electrode and a portion further from the first electrode than the first edge region, said portion having a different amount of crystallinity than the first edge region; and

forming a second capacitor electrode over the perovskite-type dielectric material.

2. The method of claim 1 wherein the first edge region has less crystallinity than said portion.

3. The method of claim 1 wherein the first edge region is substantially amorphous and wherein said portion is substantially crystalline.

4. The method of claim 1 wherein the perovskite-type material comprises a second edge region proximate the second capacitor electrode, wherein the portion is between the first and second edge regions, and wherein the second edge region has an amount of crystallinity that is about the same as the first edge region.

5. The method of claim 1 wherein the perovskite-type material has a different chemical composition in said portion than in the edge region.

6. The method of claim 1 wherein the perovskite-type material has the same chemical composition in said portion as in the edge region.

7. The method of claim 1 wherein the perovskite-type material comprises barium, strontium, titanium and oxygen throughout both said portion and the edge region.

8. The method of claim 1 wherein the perovskite-type material consists essentially of barium, strontium, titanium and oxygen throughout both said portion and the edge region.

9. The method of claim 1 wherein the perovskite-type material consists of barium, strontium, titanium and oxygen throughout both said portion and the edge region.

10. The method of claim 1 wherein the perovskite-type material comprises titanium and oxygen.

11. The method of claim 1 wherein the perovskite-type material comprises titanium and oxygen, together with one or more of barium, strontium, lead and zirconium.

12. The method of claim 1 wherein the perovskite-type material comprises one or more of barium strontium titanate, barium titanate, lead zirconium titanate, and lanthanum doped lead zirconium titanate.

13. The method of claim 1 wherein the edge region and said portion are together formed by an uninterrupted chemical vapor deposition process.

14. The method of claim 1 wherein the first capacitor electrode comprises platinum.

15. The method of claim 1 wherein the first and second capacitor electrodes comprise platinum.

16. A method of forming a capacitor construction, comprising:

providing a first capacitor electrode;

forming a perovskite-type dielectric material over the first capacitor electrode;

forming a second capacitor electrode over the perovskite-type dielectric material; and

wherein, the perovskite-type dielectric material comprises a first substantially amorphous region physically against the first electrode, a second substantially amorphous region physically against the second electrode, and a substantially crystalline region between the first and second substantially amorphous regions.

17. The method of claim 16 wherein the perovskite-type material has a different chemical composition in the third region than in the first and second regions.

18. The method of claim 16 wherein the perovskite-type material has the same chemical composition throughout the first, second and third regions.

19. The method of claim 16 wherein the perovskite-type material comprises barium, strontium, titanium and oxygen throughout the first, second and third regions.

20. The method of claim 16 wherein the perovskite-type material consists essentially of barium, strontium, titanium and oxygen throughout the first, second and third regions.

21. The method of claim 16 wherein the perovskite-type material comprises titanium and oxygen, together with one or more of barium, strontium, lead and zirconium.

22. The method of claim 16 wherein the perovskite-type material comprises one or more of barium strontium titanate, barium titanate, lead zirconium titanate, and lanthanum doped lead zirconium titanate.

23. The method of claim 16 wherein the first, second and third regions are together formed by an uninterrupted chemical vapor deposition process.

24. A method of forming a capacitor construction, comprising:

providing a first capacitor electrode;

chemical vapor depositing a perovskite-type dielectric material over the first capacitor electrode; the chemical vapor depositing comprising flowing at least one metal organic precursor into a reaction chamber and forming a component of the perovskite-type dielectric material from the precursor; the precursor being exposed to different oxidizing conditions during formation of the perovskite-type dielectric material so that a first region of the dielectric material has more amorphous character than a second region of the perovskite-type dielectric material that is formed subsequent to the first region; and

forming a second capacitor electrode over the perovskite-type dielectric material.

25. The method of claim 24 wherein the first and second capacitor electrodes comprise metal.

26. The method of claim 24 wherein the first and second capacitor electrodes comprise platinum.

27. The method of claim 24 wherein the chemical vapor deposition is conducted to form the dielectric material at a temperature of less than 500°C.

28. The method of claim 24 wherein the chemical vapor deposition is conducted to form the dielectric material at a temperature of from about 450° to about 500°C.

29. The method of claim 24 wherein the perovskite-type dielectric material comprises barium, strontium, titanium and oxygen throughout the first and second regions.

30. The method of claim 24 wherein the perovskite-type dielectric material consists essentially of barium, strontium, titanium and oxygen throughout the first and second regions.

31. The method of claim 24 wherein the perovskite-type dielectric material consists of barium, strontium, titanium and oxygen throughout the first and second regions.

32. The method of claim 24 wherein the perovskite-type dielectric material comprises titanium and oxygen, together with one or more of barium, strontium, lead and zirconium.

33. The method of claim 24 wherein the perovskite-type dielectric material comprises one or more of barium strontium titanate, barium titanate, lead zirconium titanate, and lanthanum doped lead zirconium titanate.

34. The method of claim 24 wherein the chemical vapor depositing is uninterrupted during formation of the first and second regions.

35. The method of claim 24 wherein the oxidizing conditions include exposure to one or more of N_2O, NO, H_2O_2, H_2O, O_3, and O_2.

36. The method of claim 24 wherein the oxidizing conditions include exposure to first oxidizing conditions comprising one or both of O_3 and O_2 to form the first region; and exposure to second oxidizing conditions comprising N_2O to form the second region.

37. The method of claim 24 wherein the oxidizing conditions include exposure to first oxidizing conditions comprising utilization of an oxidant consisting of one or both of O_3 and O_2 to form the first region; and exposure to second oxidizing conditions comprising utilization of an oxidant consisting of N_2O to form the second region.

38. The method of claim 24 further comprising forming a third region of the perovskite-type dielectric material subsequent to the formation of the second region during the chemical vapor depositing; the precursor being exposed to different oxidizing conditions during formation of the second and third regions of the perovskite-type dielectric material so that the third region of the perovskite-type dielectric material has more amorphous character than the second region of the perovskite-type dielectric material.

39. The method of claim 38 wherein the chemical vapor depositing is uninterrupted during formation of the first, second and third regions.

40. The method of claim 38 wherein the oxidizing conditions used during formation of the first region are identical to the oxidizing conditions used during formation of the third region.

41. The method of claim 38 wherein the oxidizing conditions include exposure to first oxidizing conditions comprising utilization of an oxidant consisting of one or both of O_3 and O_2 to form the first region; exposure to second oxidizing conditions comprising utilization of an oxidant consisting of N_2O to form the second region; and exposure to third oxidizing conditions comprising utilization of an oxidant consisting of one or both of O_3 and O_2 to form the third region.

42. The method of claim 38 wherein the first region comprises a thickness of from about 10Å to about 50Å; the second region comprises a thickness of from about 50Å to about 500Å; and the third region comprises a thickness of from about 10Å to about 50Å.

43. A capacitor construction, comprising:

a first capacitor electrode;

a perovskite-type dielectric material over the first capacitor electrode, the perovskite-type dielectric material having a first region proximate the first electrode and a second region further from the first electrode than the first region, said second region having a different amount of crystallinity than the first region; and

a second capacitor electrode over the perovskite-type dielectric material.

44. The capacitor construction of claim 43 wherein the first region comprises a thickness of from about 10Å to about 50Å; and the second region comprises a thickness of from about 50Å to about 500Å.

45. The capacitor construction of claim 43 wherein the first region has less crystallinity than the second region.

46. The capacitor construction of claim 43 wherein the first region is substantially amorphous and the second region is substantially crystalline.

47. The capacitor construction of claim 43 wherein the perovskite-type material comprises a third region proximate the second capacitor electrode, wherein the second region is between the first and third regions, and wherein the third region has an amount of crystallinity that is about the same as the first region.

48. The capacitor construction of claim 47 wherein the perovskite-type material comprises barium, strontium, titanium and oxygen throughout both the first and second regions.

49. The capacitor construction of claim 47 wherein the first region comprises a thickness of from about 10Å to about 50Å; the second region comprises a thickness of from about 50Å to about 500Å; and the third region comprises a thickness of from about 10Å to about 50Å.

50. The capacitor construction of claim 43 wherein the perovskite-type material has a different chemical composition in the second region than in the first region.

51. The capacitor construction of claim 43 wherein the perovskite-type material has the same chemical composition in the first and second regions.

52. The capacitor construction of claim 43 wherein the perovskite-type material comprises barium, strontium, titanium and oxygen throughout both the first and second regions.

53. The capacitor construction of claim 43 wherein the perovskite-type material consists essentially of barium, strontium, titanium and oxygen throughout first and second regions.

54. The capacitor construction of claim 43 wherein the perovskite-type material consists of barium, strontium, titanium and oxygen throughout the first and second regions.

55. The capacitor construction of claim 43 wherein the perovskite-type material comprises titanium and oxygen.

56. The capacitor construction of claim 43 wherein the perovskite-type material comprises titanium and oxygen, together with one or more of barium, strontium, lead and zirconium.

57. The capacitor construction of claim 43 wherein the perovskite-type material comprises one or more of barium strontium titanate, barium titanate, lead zirconium titanate, and lanthanum doped lead zirconium titanate.

58. The capacitor construction of claim 43 wherein the first capacitor electrode comprises a metal.

59. The capacitor construction of claim 43 wherein the first capacitor electrode comprises platinum.

60. The capacitor construction of claim 43 wherein the first and second capacitor electrodes comprise platinum.